



INTERNAL USE ONLY

## Products Instruction

VMC

DNM/Mynx



February 2014  
Doosan Infracore  
Machine Tools BG

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## A. Turning Center

1. Horizontal TC
2. Vertical TC
3. Swiss turn type TC

## B. Machining Center

1. Vertical MC
2. Horizontal MC
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# Designation of Vertical/Horizontal Machining Center



※ Some models are not exactly match the explanations above.

## ① Machine group

- ♣ DT : Vertical, **Doosan Tapping Center**
- ♣ DNM : Vertical, Standard \_ LM Guideway
- ♣ Mynx : Vertical, Standard \_ Box Guideway
- ♣ VM : Vertical, **Mold & Die** \_ General
- ♣ DVM : Vertical, **Mold & Die** \_ High speed
- ♣ NX : Vertical, **Mold & Die**
  - \_ High speed & precision
- ♣ FM : Vertical, Ultra-speed,
- ♣ VC : Vertical, traveling **Column**
- ♣ VCF : Vertical, traveling **Column**, **Fixed table**
- ♣ BM : Vertical, **Bridge Type Machining Center**
- ♣ HC : **Horizontal, Compact**
- ♣ HM/NHM : **New Horizontal, Massive (Heavy duty)**
- ♣ HP/NHP : **New Horizontal, Productive (high speed)**

## ② Nominal Size

- ♣ Vertical : Y axis travel
- ♣ 5-axis : Rotary table diameter
- ♣ Horizontal : Pallet size

## ③ Suffix & Application

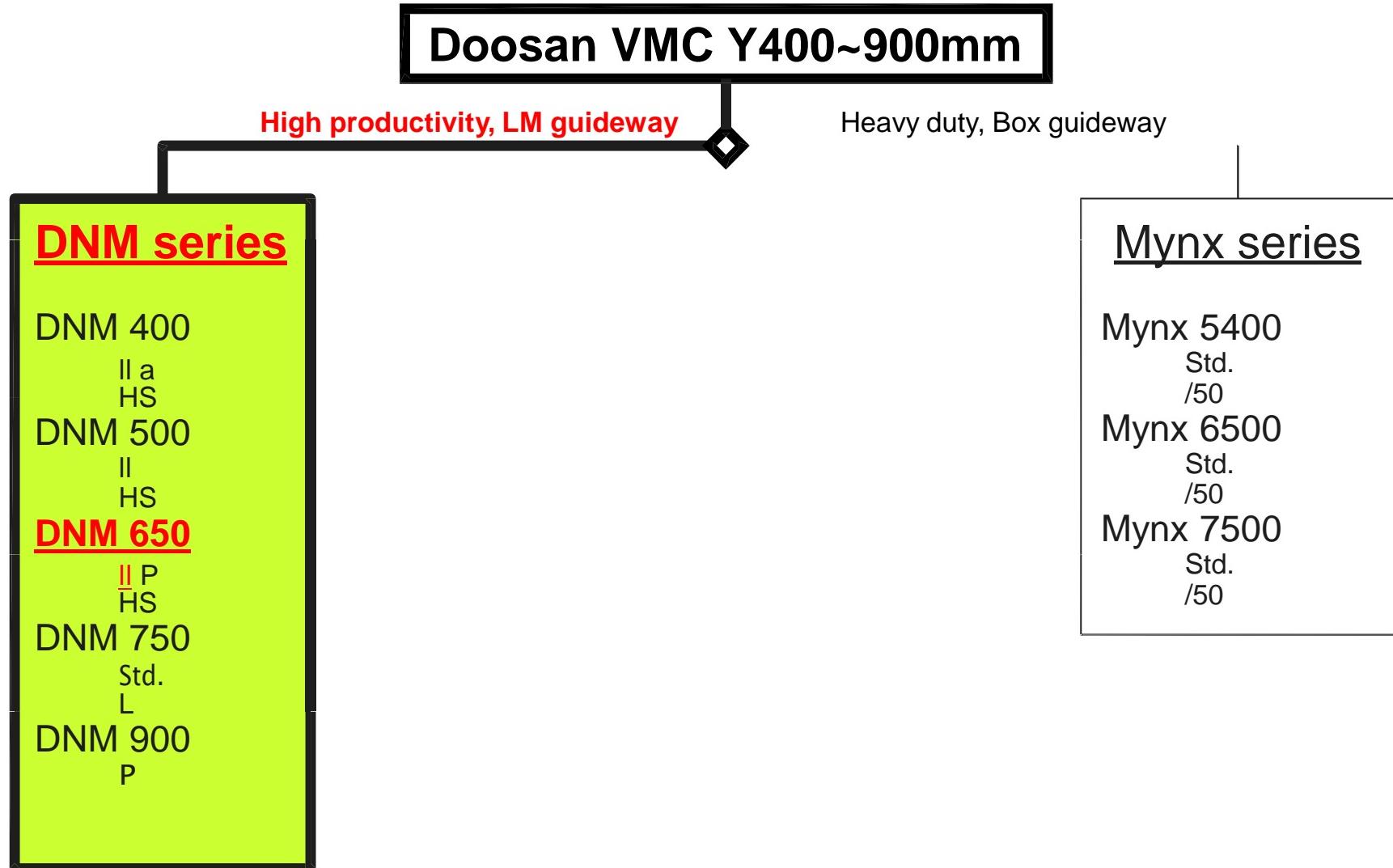
- ♣ /40, /50 : Tool taper #**40**, #**50**
- ♣ L : **Long Stroke**
- ♣ D : **Dual pallet**
- ♣ a : **Compact size**
- ♣ HS : **High Specification**
- ♣ /5AX : **5-Axes**
- ♣ P : Aluminum **Panel** machining
- ♣ M : **Mold & Die**
- ♣ II : **Facelift & Upgrade**

# Vertical MC

	a Tapping Center	b VMC	c Productivity VMC	d Die & Mold VMC				e 5axis VMC			
Y travel or Rotary table dia. (mm)	DT series	DNM series      Mynx series	VC series	VM series	DVM series	NX series	FM linear series	DNM series	NX series	VC	FM linear series
Y travel (mm)	~ 450	DT 400 DT 360D DT 400L	DNM 400 II	VC 430			NX 4500 II	FM 400 linear			
	~550		DNM 500 II	Mynx 5400	VC 510	VM 5400 VM 560	DVM 500 II	NX 5500 II			
	~670		DNM 650 II	Mynx 6500		VM 6500	DVM650 II	NX 6500 II			
	~750		DNM 750	Mynx 7500		VM 750					
	~850										
	~960		DNM 900		VM 960						
	~1260				VM 1260						
Rotary table dia. (mm)	350							DNM 350/5AX			FM 350/5AX linear
	500								NX 500/5AX		
	630									VC 630/5AX	

# ■ VMC Y400~900

## Concept...



# DNM series

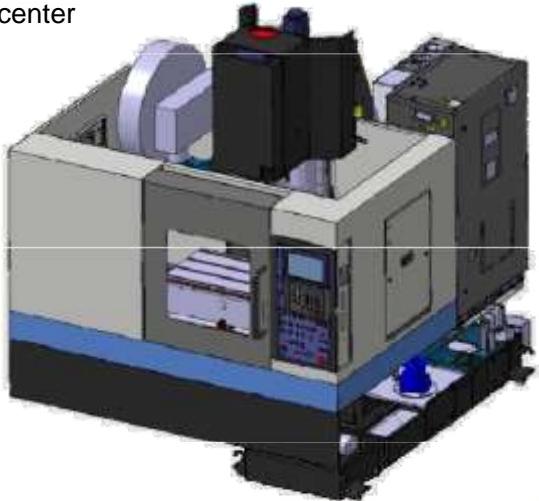
Y travel (mm)	Tool taper	X travel (mm)	Conventional		
			Standard	High speed	Heavy duty
435	#40	635	DNM 400a		
		762	DNM 400 II	DNM 400HS	
	#40	1020	DNM 500 II	DNM 500HS	Mynx 5400
		1020			Mynx 5400/50
670	#40	1400	DNM 650P		
		1270	DNM 650 II	DNM 650HS	Mynx 6500
	#50	1270			Mynx 6500/50
762	#40	1630	DNM 750		
		2160	DNM 750L		Mynx 7500
	#50	1525			Mynx 7500/50
900	#40	1650	DNM 900P		

# ■ DNM series \_ DNM400α



## HIGH PRODUCTIVITY & COMPACT

- High productivity & Space-saving vertical machining center



## APPLICATION

- AUTOMOTIVE COMPONENT
- ELECTRONIC, IT COMPONENT



## TYPICAL WORKPIECE

- HUB
- HEAT SINK



## MAIN FEATURES

- HIGH SPEED TAPPING, HIGH PRODUCTIVITY
- HIGH SPEED ATC : T-T 1.3s
- CHIP AUGER SYSTEM (Std.)
- COMPACT SIZE : DNM400a - 2060(W) x 2130(L)mm



## COMPETITOR

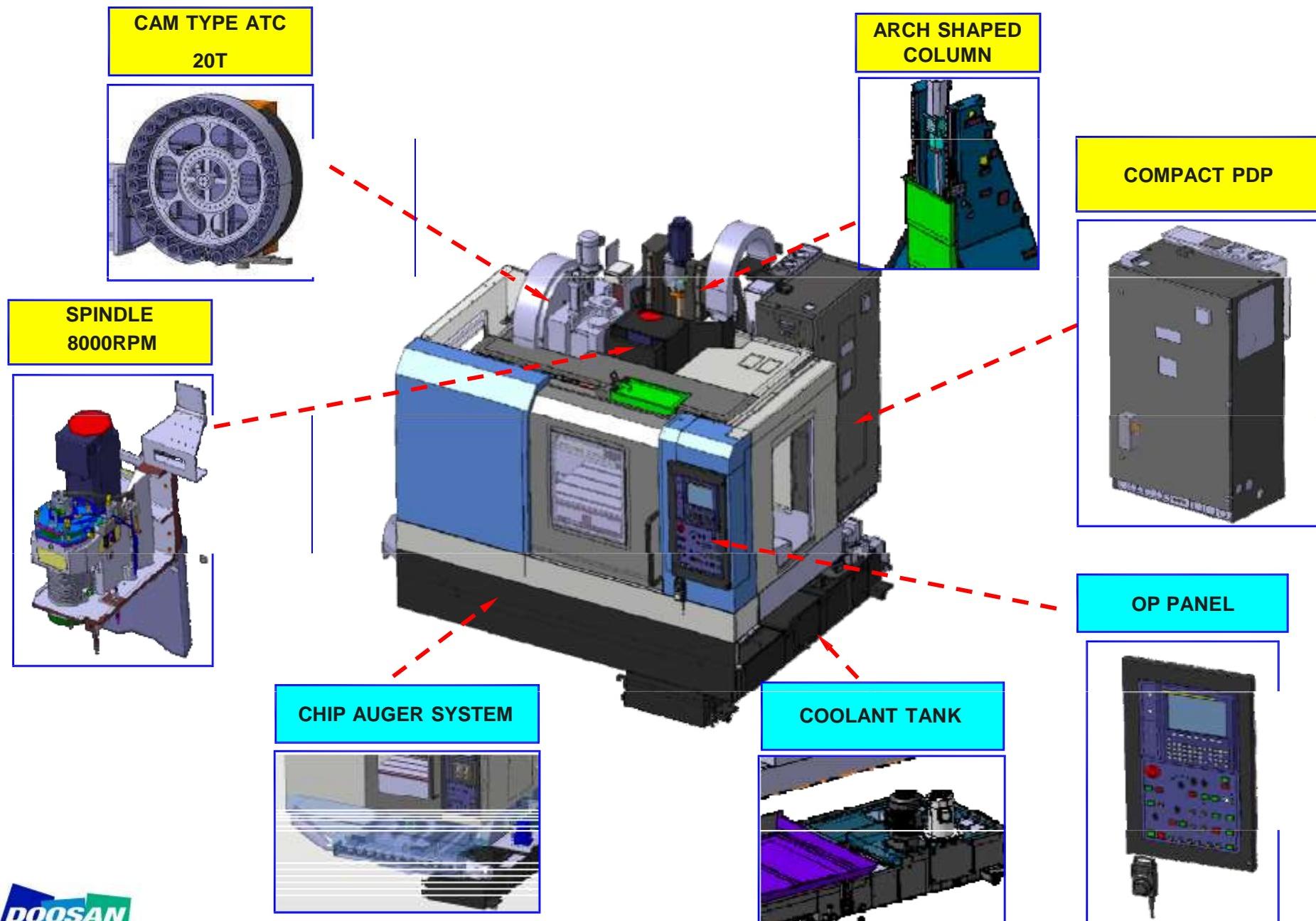
- HAAS, HYUNDAI - KIA



## STATUS / SCHEDULE

- MASS PRODUCTION : 2010. Apr. ~

## DNM Series: DNM 400 α \_ Major units & sales point



## ■ DNM Series: DNM 400 a \_ Sales point (1/2)

The smallest VMC in Doosan with competitive Price

Description	
<b>Stroke</b>	
X-axis	mm
Y-axis	mm
Z-axis	mm
<b>Rapid traverses</b>	
X-axis	m/min
Y-axis	m/min
Z-axis	m/min
<b>Table</b>	
Table size	mm
Table load	kg
<b>Spindle(Std.)</b>	
RPM	rpm
Power	kW
Torque	Nm
Tool Spec.	
<b>ATC</b>	
No. of tool	
Max. Tool diameter	mm
Max. Tool diameter for vacant adjacent pockets	mm
Max. Tool length	mm
Tool exchange time	s
<b>NC</b>	
자사 CNC	
Fanuc	
Heidenhain	
Siemens	

DNM400
762
435
510
36
36
30
920X435
600
8000
15/11
106/70
BT40
30
80
125
300
1.3
CAM ATC
Oi-MC
iTNC530(개발중)
개발예정

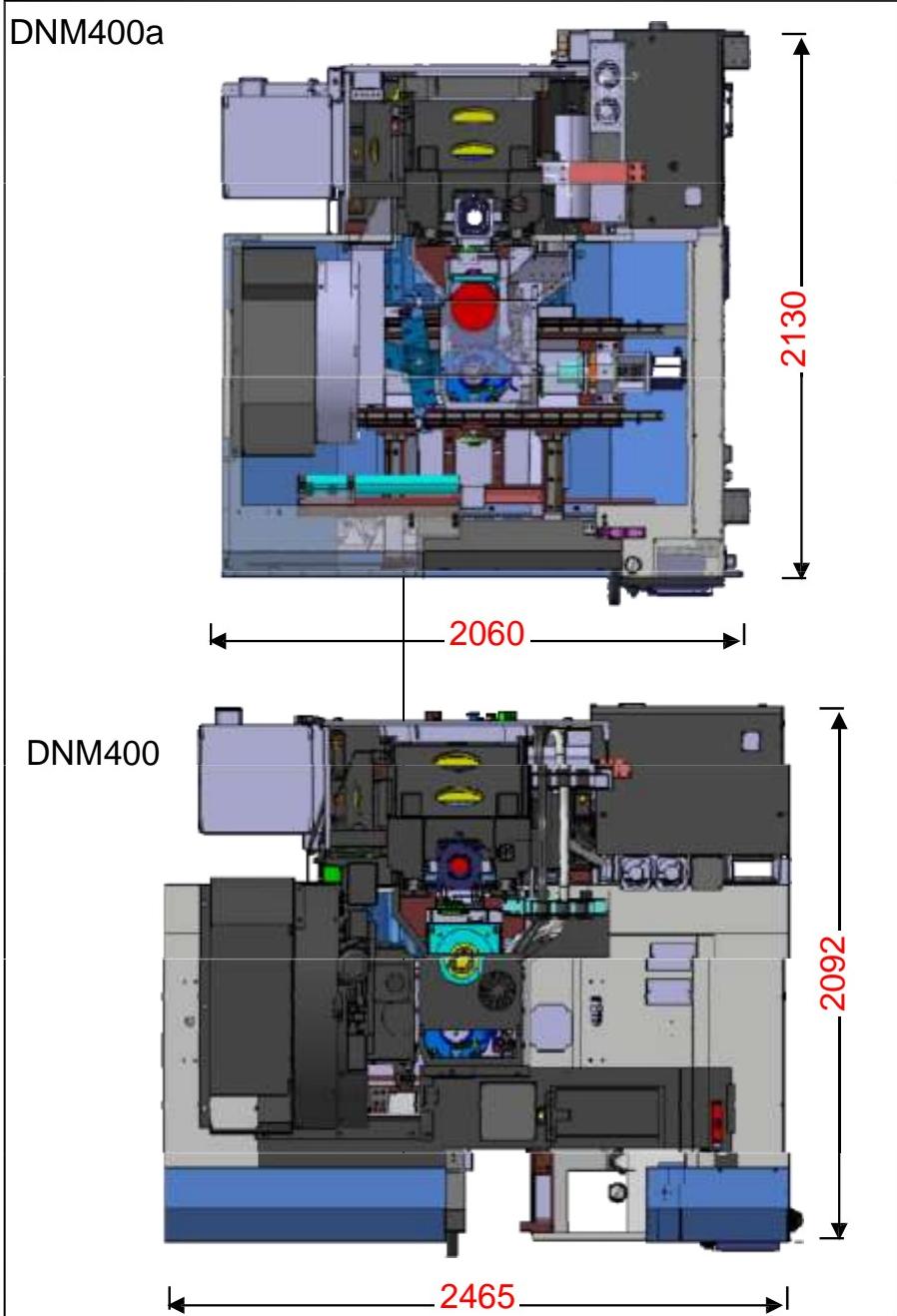
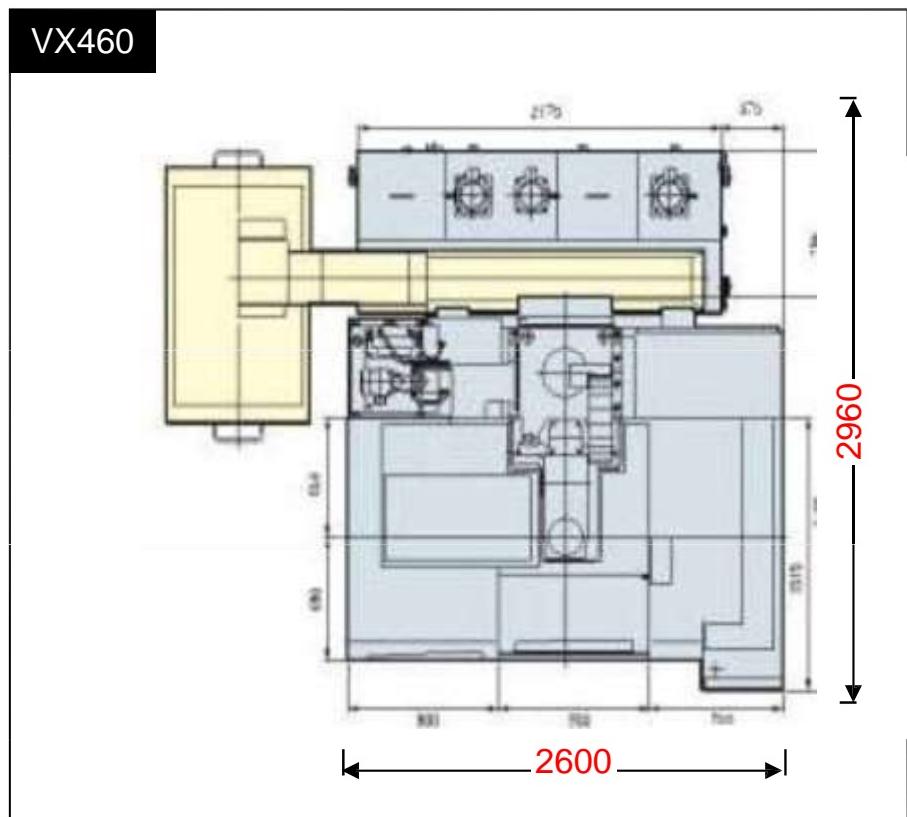


DNM400 a
635
435
510
30
30
30
790X 435
400
8000
7.5/11
CAT40
20
80
125
300
1.3
cam
Oi-MD

## DNM Series: DNM 400 α\_Sales point (2/2)

### COMPACT SIZE

Model	DNM400a	DNM400	WIA VX460
L(mm)	2,130	2,092	2,960
W(mm)	2,060	2,465	2,600
Area(m <sup>2</sup> )	4.4	5.2	7.7



# DNM series: DNM 400/500/650 II Upgrade

## HIGH PRODUCTIVITY VMC



## APPLICATION

- AUTOMOTIVE COMPONENT
- IT, Semi conductor

## TYPICAL WORKPIECE

- Cover of valve
- Plate



## MAJOR SPECIFICATIONS

- Stroke (X/Y/Z) DNM400II : 762 / 435 / 510 mm  
DNM500II : 1020 / 540 / 510 mm  
DNM650II : 1270 / 670 / 625 mm
- Table size DNM400II : 920 x 435 mm, 600kgf  
DNM500II : 1200 x 540 mm, 800kgf  
DNM650II : 1300 x 670 mm, 1000kgf
- Spindle #40 - 8,000 rpm, 15kw (F,Std) / 16.5kw (SIE,Std)  
- 12,000 rpm, 15kw(F,Opt.) / 16.5kw (SIE.Opt.)
- Rapid traverse (X/Y/Z) : 36/36/30 m/min
- Tool storage capacity : 30T(Std.), 40T (Opt.)
- Tool change time : 1.3 sec (T-T-T)
- NC : F- 0iMD // SIE - S828D // HEID i-TNC530

## FEATURES

- All axis Roller LM guide for higher speed & accuracy
- 12000 r/min direct driven spindle
- Improved the rigidity of frame by FEM analysis.
- Two screw conveyors for easy chip removal
- Various NC – FANUC, SIEMENS HEIDENHAIN
- HIGH SPEED & PRODUCTIVITY

## COMPATITORS

- MORI - NVX, HWACHEON

## STATUS / SCHDULE

- Under Mass Production :2008~

Sales points...



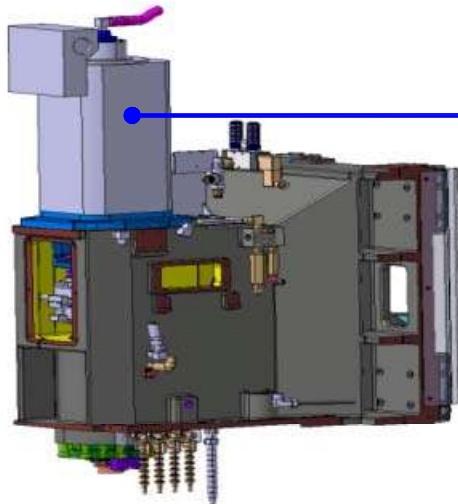
**1 Direct coupled spindle  
for 12kr/min (Opt.)**

**2 Roller type LM guideway in  
X/Y/Z all axes for high  
rigidity & long life**

**3 New OP & Fanuc 0iTD with  
10.4" Color LCD & EZ-i for  
convenience**

## Sales point

Direct coupled spindle for 12000r/min(Opt.) to improve productivity, accuracy, roughness and comfortability.



Model	DNM II	Smart VMC	VF
Spindle type	8k: Belt 12k: Direct	12k: Direct	8k: Belt 12k: Direct



- z Reduced Spindle Acc./Dec. time: 56% down
  - Acc. time(0 ↑ 12kr/min): 4.9 ↑ 2.16sec
  - Dec. time(12 ↑ 0kr/min): 4.9 ↑ 2.21sec

¾ Increased productivity 10% up  
Doosan's test item

- z Reduced Vibration(Y axis): Magnitude 70% down

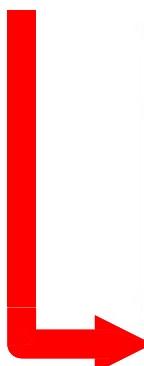
¾ Better surface roughness

- z Reduced Thermal displacement of Spindle (Y/Z axis) with thermal error compensation (Std.): over 50% down

¾ Better machining accuracy

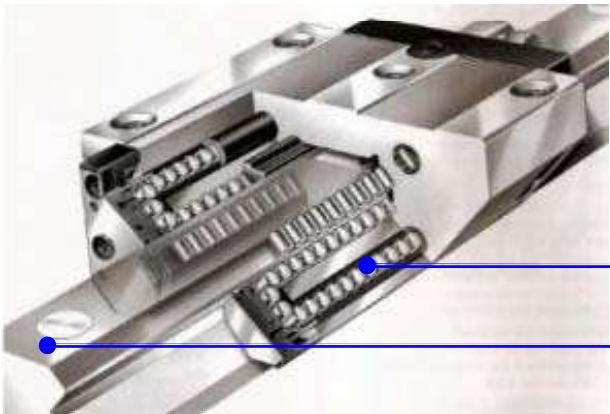
- z Reduced Noise: Amplitude 56% down

¾ More comfortable environment

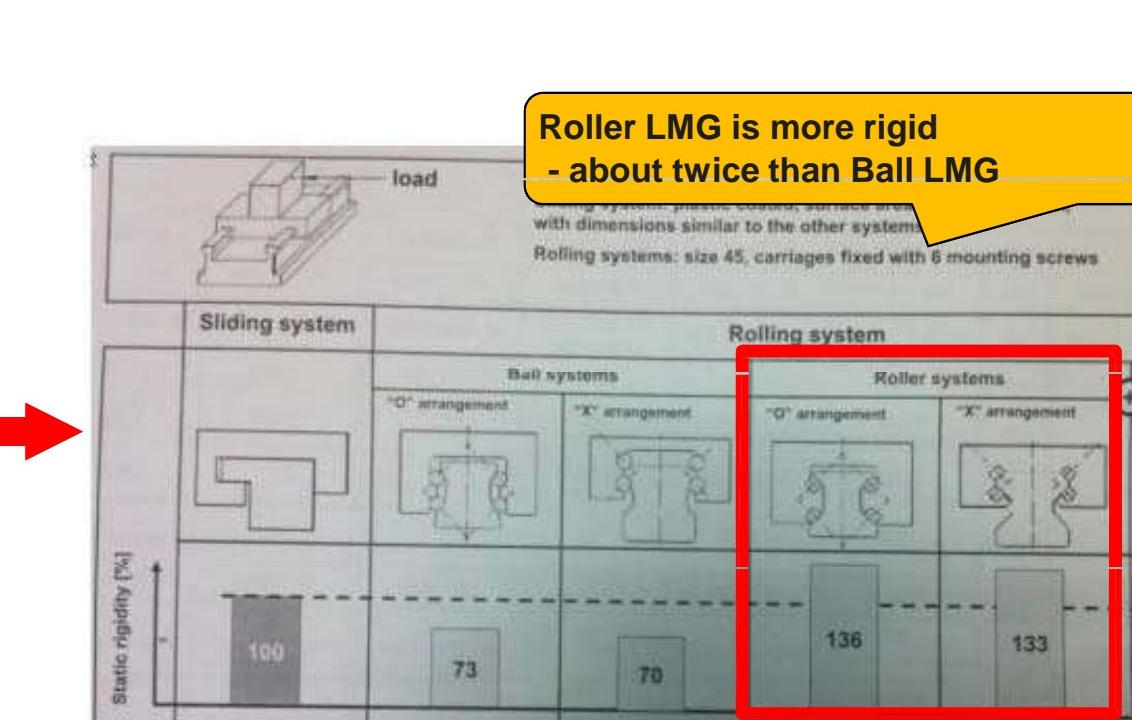


## Sales point

Roller type LM guideway in X/Y/Z all axes for high rigidity, geometry accuracy, & long life



Model	DNM II	Smart VMC	VF
LM type	Roller	= Roller	> Ball+Roller
LM width X/Y/Z Ball	34/45/45mm	> 34/34/34mm	
screw dia. X/Y/Z	40mm	> 36mm	



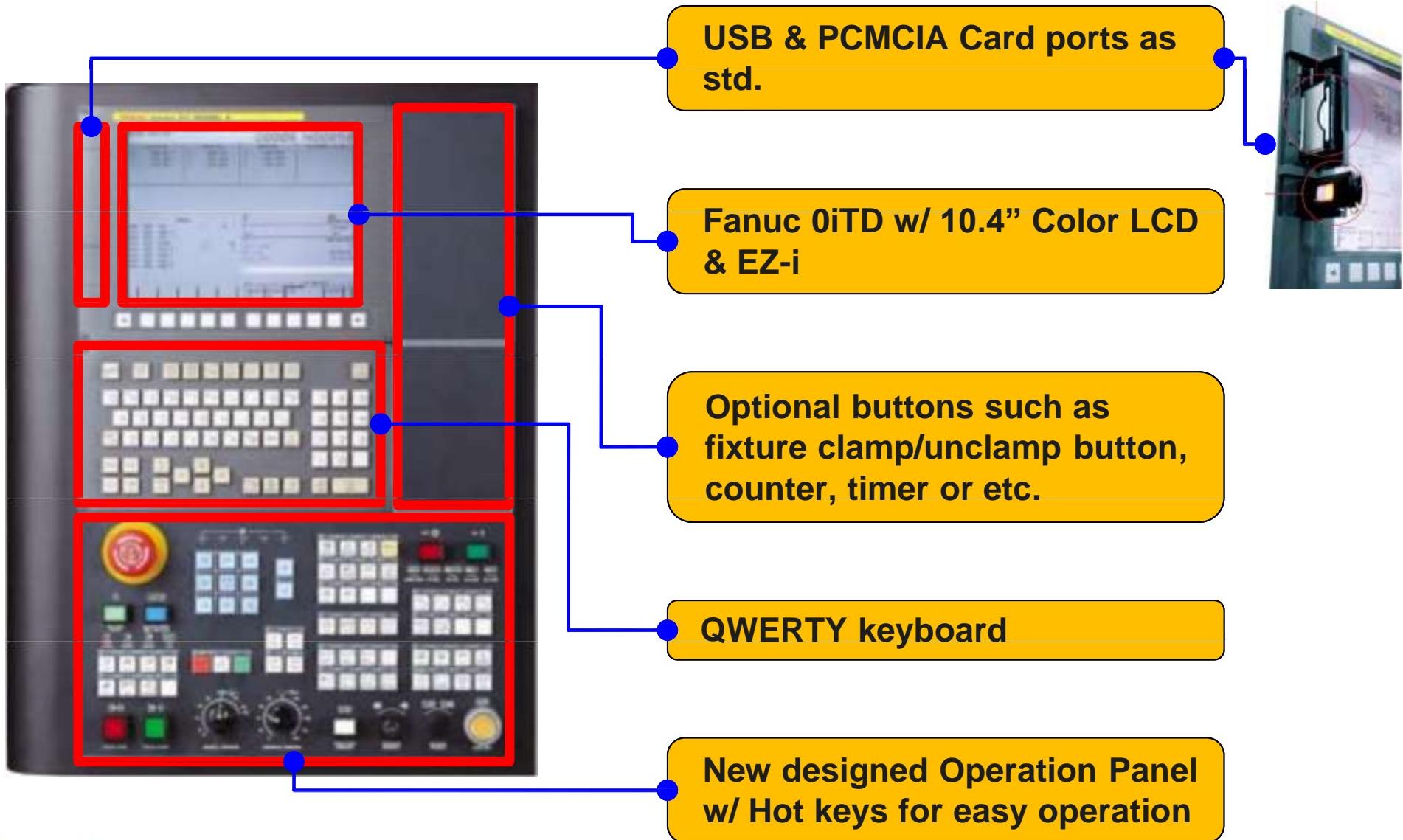
**Roller LMG is more rigid  
- about twice than Ball LMG**

**Roller LMG's life is longer about  
twice than Ball LMG**

Roller▶	X axis	Service Life
	RG35C-ZB	22,930(km)
Ball▶	HG35C-ZB	10,146(km)
Roller▶	Y axis	Service Life
	RG45C-ZA	88,345 (km)
Ball▶	HG45C-ZA	41,654 (km)
Roller▶	Z axis	Service Life
	RG45C-ZA	116,088 (km)
Ball▶	HG45C-ZA	60,185 (km)

## Sales point

### New OP & Fanuc 0iTD with 10.4" Color LCD & EZ-i for convenience



# DNM series: DNM 650P



## VMC FOR PANEL TYPE WORKPIECE

- High productivity vertical machining center



## MAJOR SPECIFICATION

- STROKE : 1400/670/625 mm
- TABLE SIZE : 1500 x 680 mm  
LOAD ; 600kg
- SPINDLE : 8,000(12,000) rpm, BT40
- SPINDLE POWER : 15/18.5(11/15)kW
- RAPID TRAVERSE (X/Y/Z) : 36/36/30 m/min
- ATC TIME : 1.3 sec
- NC : FANUC I-SERIES



## APPLICATION

- LCD PANEL COMPONENTS & EQUIPMENTS
- IT FACILITIES



## TYPICAL WORKPIECE

- LCD/LED FRAME
- THIN & LIGHT PLATE



## MAIN FEATURES

- ROLLER LM GUIDEWAY
- 1400mm X-STROKE & LARGE TABLE SIZE(1500x680mm)
- MAX DOOR OPEN WIDTH : 1410mm
- SMALL FLOOR SPACE(W x L) : 3350 x 2674
- NEW DESIGN FOR INCREASING RELIABILITY AND PERFORMANCE



## COMPETITOR

- HAAS, HYUNDAI - KIA



## STATUS / SCHEDULE

- MASS PRODUCTION : OCT. 2010~

# DNM series: DNM 650P Specification

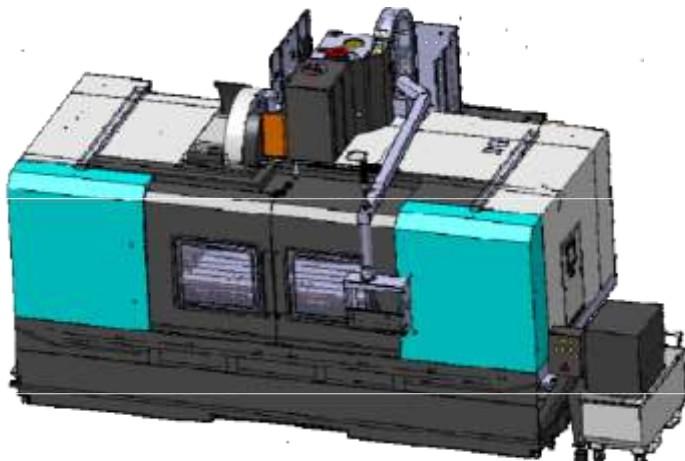
## Standard Specification

Spec.		Unit	DNM Series			
			DNM400	DNM500	DNM650	DNM650P
Stroke	X/Y/Z	mm(Inch)	762/435/510 (30/17.1/20)	1,020/540/510 (40/21.2/20)	1,270/670/625 (50/26.3/24.6)	1400/670/625 (55.2/26.3/24.6)
	Guideway	Type	LM Guide	LM Guide	LM Guide	Roller LM Guide
Table	size	mm(Inch)	920x435(36.2x17.1)	1200x540(47.2x21.2)	1300x670(51.2x26.3)	1500x680(59x26.8)
	Allowable load	kg(lb)	600(1,322)	800(1,764)	1,000(2,205)	600(1,323)
	Motor power (Max)	kW(hp)	15(20)	—	18.5(25)	18.5(25)
Spindle	Max. torque	N.m(lbf-ft)	95.5(70.4)	—	117.7(86.8)	117.7(86.8)
	Spindle speed	Std. rpm	8,000(Belt)	—	8,000(Belt)	8,000(Belt)
		Opt.	12,000(Belt)	—	12,000(Belt)	12,000(Belt)
	Taper	#	40	—	—	—
Tool storage	Std.	EA	30	—	—	—
	Opt.		40	—	—	—
Tool Magazine	Max tool dia.	mm(Inch)	80(3.15)/76(3)	—	—	—
	Max tool length	mm(Inch)	300(11.8)	—	—	—
	Tool changer arm	Type	CAM	—	—	—
	Tool change time	sec	1.3	—	—	—
Display	Rapid traverse(X/Y/Z)	mm/min (Inch/min)	36/36/30 (1,417/1,417/1,181)	—	—	—
		std.	8.4" color LCD	—	—	—
		opt.	10.4" color LCD	—	—	—
Controller	Fanuc (SIE // HEI)	0iMD // S828 // ITNC530i	—	—	0iM-D	

# DNM series: DNM750(L)

## HIGH SPEED VMC FOR GENERAL PURPOSE

- High productivity vertical machining center for big sized workpiece



## APPLICATION

- FACTORY AUTOMATION
- COMMERCIAL VEHICLE

## TYPICAL WORKPIECE

- BEAM FOR FACTORY AUTOMATION



## MAIN FEATURES

- ROLLER LM GUIDEWAY
- MINIMIZED TABLE OVERHANG  
  ■ 4- ROWS LM FOR Y-AXIS (L-VERSION)
- 2- DOORS FOR WIDE OPENING
- SWIVELING PENDANT ARM

## COMPETITOR

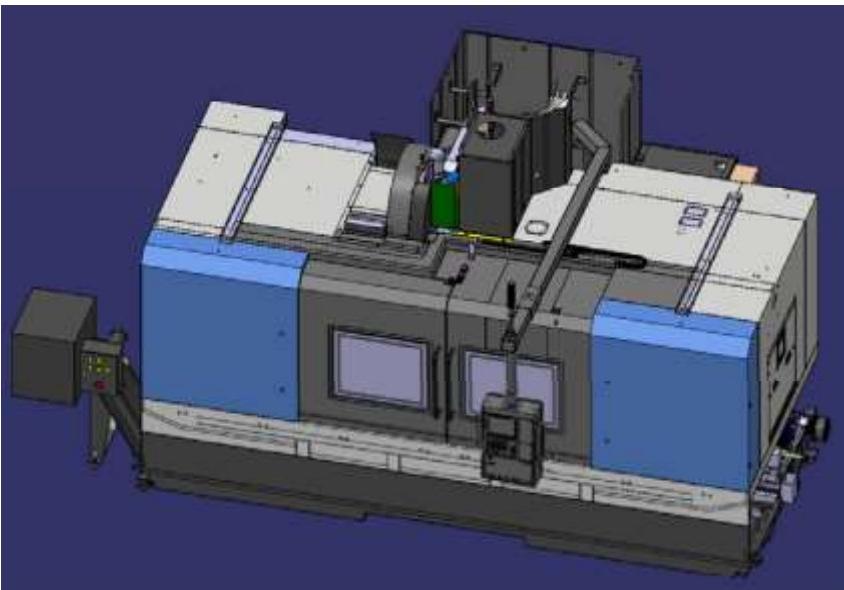
- MAZAK – VTC , HAAS

## STATUS / SCHEDULE

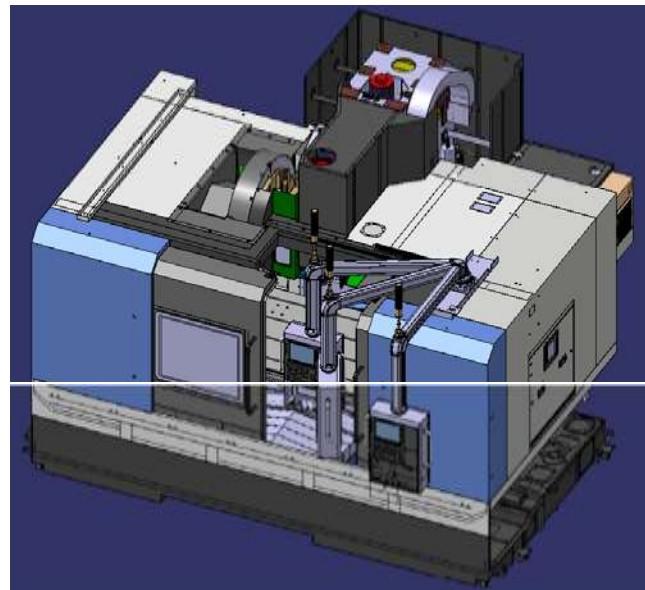
- PROTO MC (L Version) : DIMF 2011 // PRODUCTION : Nov. 1~
- PROTO MC (S Version) : June. '11 // PRODUCTION : Nov. ~

## DNM series: DNM750(L) PENDANT ARM

Previous



DNM900P



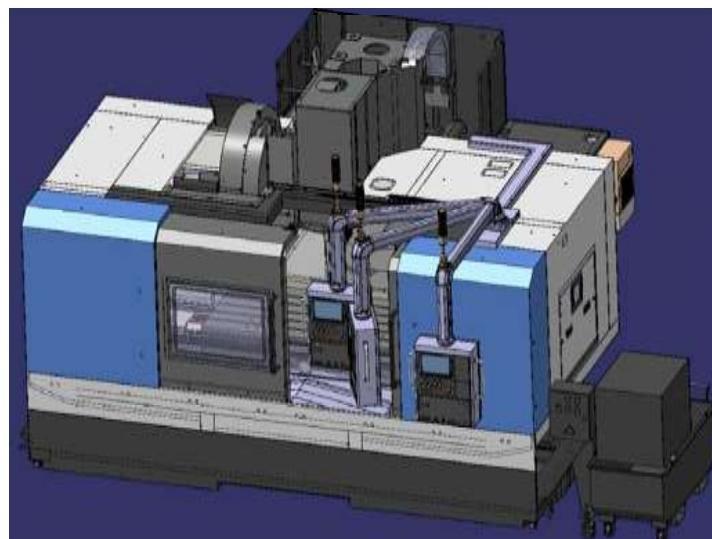
### # Merit

- No sag caused by long length Op panel arm
- No move when OP Box operate.
- OP BOX easily fixed rotation
- Beautiful appearance

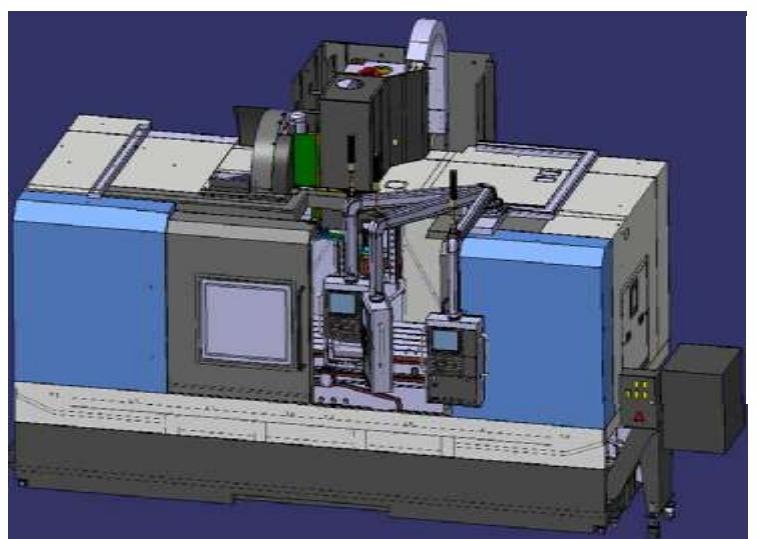
### # Applying date

- Nov.2013.

DNM750



DNM750L





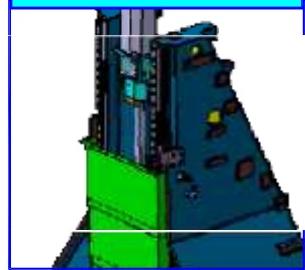
## DNM series: DNM750(L) Major units & sales point

- 4-Raw LM Guide for Y-Axis (L-Version)
- Waste lub oil Collecting on the bed
- Common ATC for DNM
- Slide cover with linkage
- Ball Screw with Nut Cooling
- Oil Cooler for Spindle –Std.
- Unique design for minimizing heat growth of spindle

- 2ea Operator's Door
- Swiveling Pendant Arm & OP Console.
- Tool loading door beside Tool Magazine

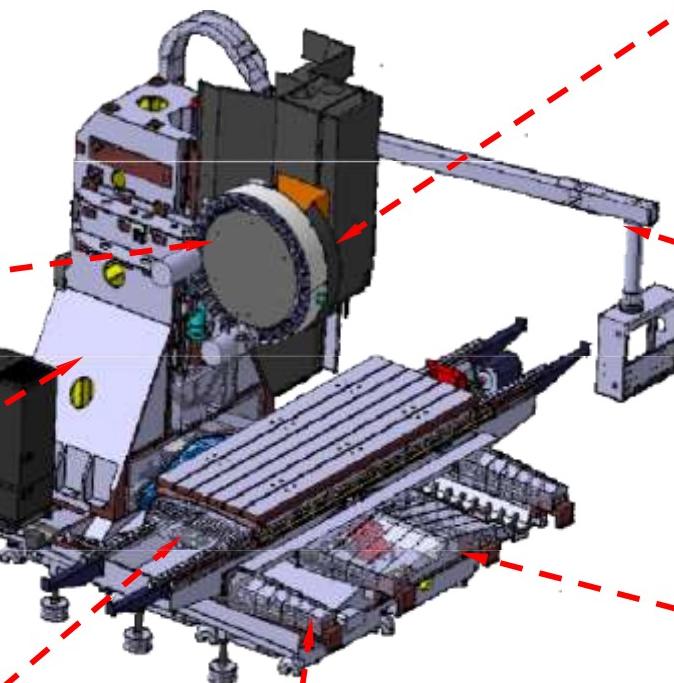
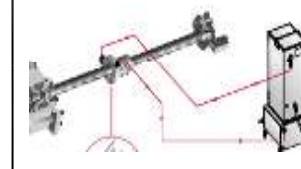


ATC - 30T(40T)



Arch Shaped COLUMN

BALL SCREW  
NUT COOLING



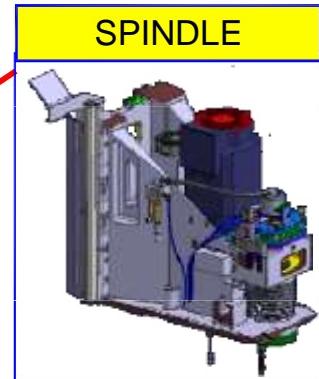
4-RAILS  
ROLLER GUIDE



2-Doors



SPINDLE



SWIBLING  
PENDANT ARM



WASTE OIL  
COLLECTION





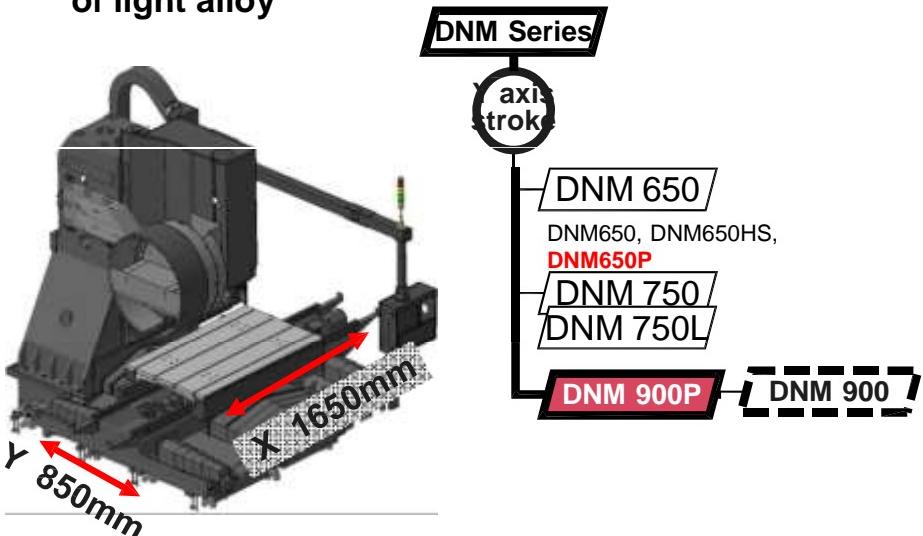
# DNM series : DNM750(L) Specification

ITEM	UNIT	MAZAK	HAAS		DOOSAN		WIA
			VTC300C(USA)	VF-6/40	VF-7/40	DNM750	
AXIS	X-STROKE	mm	1660	1626	2134	1630	2160
	Y-STORKE	mm	760	813	813	762	762
	Z-STROKE	mm	660	762	762	650	650
	RAPID(X/Y/Z)	m/min	30/30/30(24) 20/30/30(48)	13.7/15.2/12.7	15.2	30/30/24	24/24/24
TABLE	GUIDE TYPE		LMG	LMG	LMG	Roller LM LMG(roller)	
	SIZE(X x Y)	mm	2000x760	1626x711	2134x711	1630x760	2160x760
	MAX. WORKPIECE WEIGHT	kgf		1814	1814	1500	1500
	T - SLOT		5-125x18H8			6-125x18H8	6-125x18H8
SPINDLE	TAPER	ISO #	40	40	40	40	40(50)
	MAIN SPINDLE DIA	mm				70	70
	MAX. RPM	RPM	12000	7500	7500	8000(12000)	8000(12000)
	MOTOR POWER	Kw	15	15	14.9	15/22	15/22
ATC	MAX. TORQUE	kgf.m/rp		10.4/1400	10.4/5140	11.9	11.9
	TOOL STORIDGE	EA	24	24	24	30/40/60	30/40/60
	TTT/CTC	sec		2.8/3.6	2.8/3.6	1.3/3.7	1.3/3.7
	NC TYPE					F-GMD	F-GMD

# ■ DNM series \_ DNM 900P

## Concept

- **HIGH SPEED VMC FOR LIGHT ALLOY**
  - High precision and high productivity vertical machining center for big & thin workpiece made of light alloy



## Launching / Mass production plan

- Sales launching in Oct. 2012

## Exhibition plan



## Major specifications

• STROKE (X/Y/Z)	1650/900/500mm
• SPINDLE	12000r/min, Taper #40
• Table Allowable load	500kg
• Number of tool	30 (40)
• RAPID TRAVERSE(X/Y/Z)	36/36/36m/min
• ATC TIME	1.3sec T-T-T
• CNC Controller	Fanuc 0iMD with USB port

## Sales points

- Direct coupled spindle
- Minimized table overhang & 4-rows roller LM guide way for Y-axis
- Oil cooler(Std) of spindle & ball screw nut cooling

## Target customers / Application

- Long & thin parts of light cutting customer in Automotive, LCD and Aerospace industry



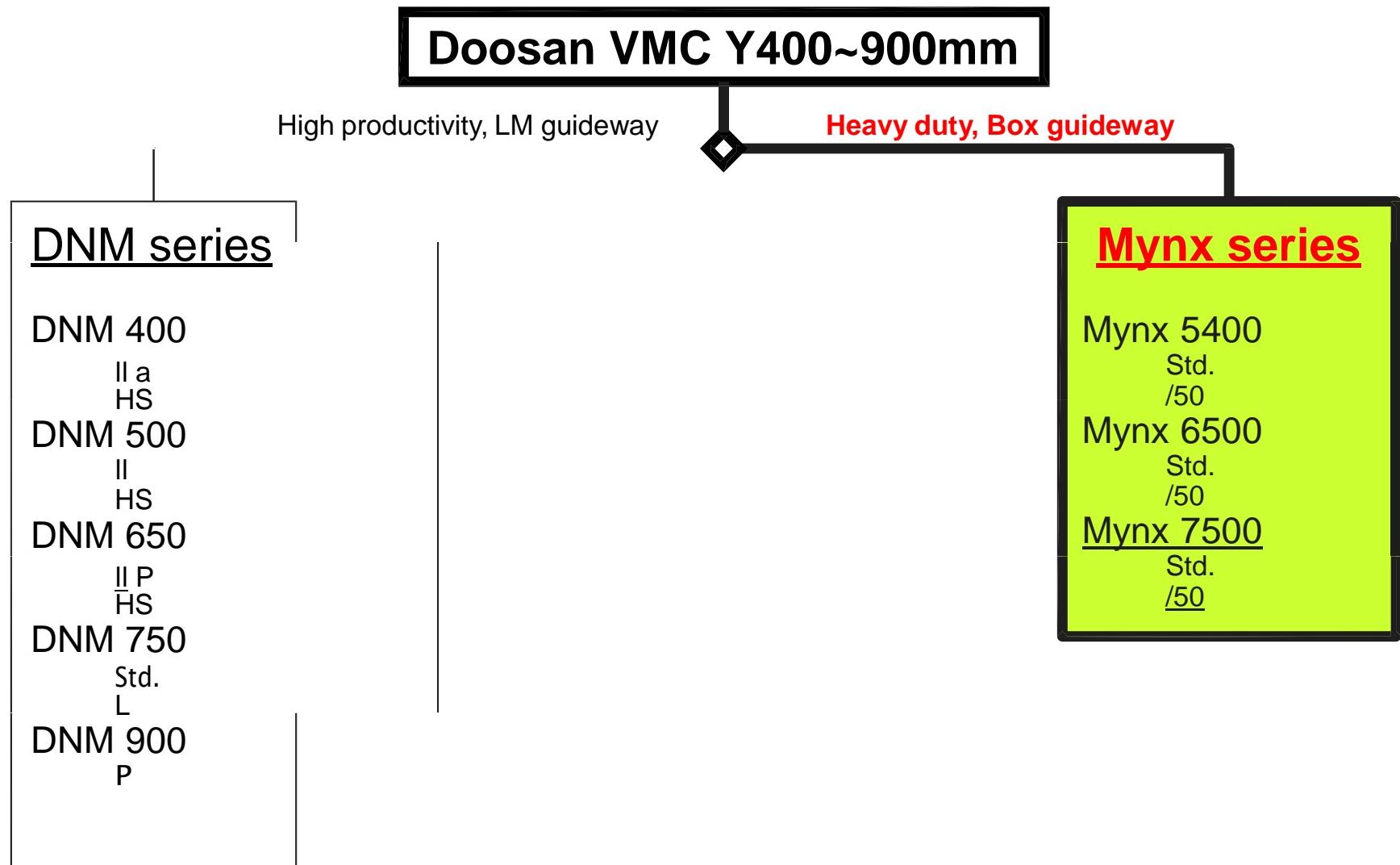
BEAM FOR  
FACTORY  
AUTOMATION

## Competitors / Model

- Haas VF-6/40
- Mazak VTC300CII(UK)

# ■ VMC Y400~900

## Concept...



# Mynx series

← Function →

Y travel (mm)	Tool taper	X travel (mm)	Conventional		
			Standard	High speed	Heavy duty
435	#40	635	DNM 400a		
		762	DNM 400 II	DNM 400HS	
	#40	1020	DNM 500 II	DNM 500HS	
		1020			
540	#40	1020			
		#50			
	#40	1400	DNM 650P		
		1270	DNM 650 II	DNM 650HS	
670	#40	1270			
		#50			
	#40	1630	DNM 750		
		2160	DNM 750L		
762	#40	1525			
		#50			
	#40	1650	DNM 900P		

Mynx 5400

Mynx 5400/50

Mynx 6500

Mynx 6500/50

Mynx 7500

Mynx 7500/50

# Mynx series \_ MYNX5400/6500/7500



## Machine Concept

- Heavy Cutting, High performance for general purpose



MYNX5400 / MYNX6500



MYNX7500



## Main Specifications

- STROKE      MYNX5400 : 1020 / 540 / 530 mm  
                  MYNX6500 : 1270 / 670 / 625 mm  
                  MYNX7500 : 1525 / 762 / 625 mm
- TABLE SIZE    MYNX5400 : 1200 x 540 mm, 800kgf  
                  MYNX6500 : 1400 x 670 mm, 1000kgf  
                  MYNX7500 : 1600 x 750 mm, 1500kgf
- SPINDLE       #40 - 8,000 rpm, 15kw (belt, Std.)  
                  #50 - 6,000 rpm, 15kw (belt)  
                  #50 - 6,000 rpm, 22kw (Gear box)  
                  #50 - 6,000 rpm, 18.5kw (Gear box)
- Rapid TRAVERSE (X/Y/Z) : 30/30/24 m/min
- TOOL STORAGE : #40 - 30T / #50 - 24T
- ATC TIME : #40 - 1.3 sec / #50 – 2.5 sec
- NC : FANUC 0iMD



## Applications

- Item required the heavy duty cutting & high productivity



## Typical Workpiece

- Vehicle (AL Wheel, Cylinder Block...), Blade, etc..



## Main Features

- Rigid C-frame structure with ARCH-shape column.
- High torque spindle for heavy duty
- Dual contact spindle (Big-Plus) is standard feature
- Improved Chip disposal (Built-in screw chip conveyor)
- Pentium Board is standard feature
- 10.4" Color LCD is standard feature
- Y-stroke is longer than the previous model

Mynx540 : 510mm ┌ Mynx5400 : 540mm

Mynx650 : 650mm ┌ Mynx6500 : 670mm



## Major Competitors

- MORI - Dura, Hass – VF, Mazak - Nexus

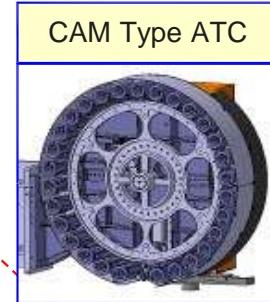


## Status / Schedule

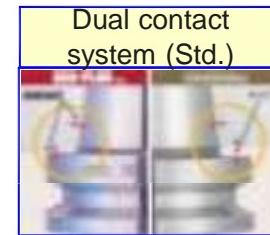
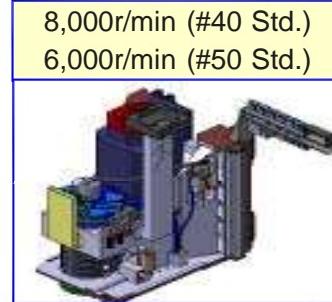
- Mass Production : Feb. 2010 ~

# Mynx series \_ Major units & sales point

- Automatic tool length measure.
- Thermal error compensation

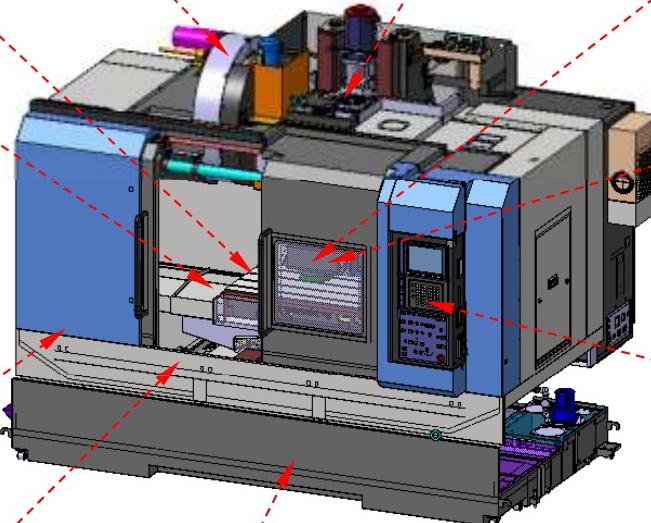
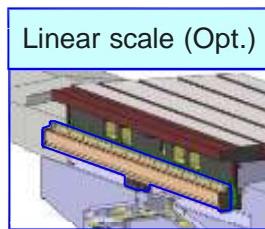


- #40 taper (All Mynx)  
30tool(std) / 1.3sec  
40tool(opt)
- #50 taper  
24tool(std) - Mynx5400  
30tool(opt) - Mynx6500  
40tool(opt) - Mynx7500



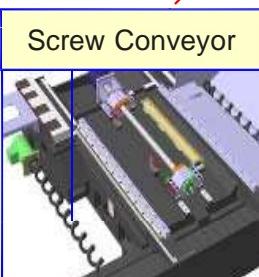
- Machining precision through minimized tool vibration

- Direct Feed Back

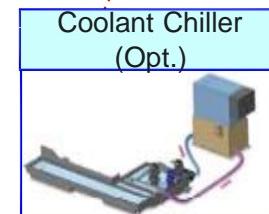


- Easy MQL application
- Better working circumstance

- Spindle head cooling system
- Minimize spindle head thermal displacement.



- Screw conveyor for easy chip disposal



- Restrain thermal deformation by coolant temp. control.



- Wide & thick guideway
- Excellence in vibration absorbing



- Fanuc 0iMD
- Fanuc 31i (opt)



Rigid C-frame structure with ARCH-shape column

## Mynx series \_ Specification\_vs Competitors.

		단위	DOOSAN	WIA	DOOSAN	WIA	DOOSAN	WIA
			Mynx5400	F510B	Mynx6500	F600B	Mynx7500	F750B
이송계	이송거리 X / Y / Z (A/C)	mm (deg)	1020/540/530	1100/510/635	1270/670/625	1150/600/600	1100 / 510 / 635	1550 / 750 / 720
이송속도	급속이송속도 X/Y/Z	m/min	30/30/24	30/30/24	30/30/24	24 / 24 / 20	30/30/24	16 / 16 / 12
테이블	테이블 사이즈	mm	1200 x 540	1200 x 500	1400 x 670	1600 x 580	1600 x 750	1800 x 700
	허용 하중	kg	800	800	1000	1000	1500	2000
스핀들	최대 스피드 속도	r/min	8000 (6000,12000)	8000	8000(12000)	4500 (8000)	8000(12000) 6000(8000)	4500(8000)
	구동 방식		Belt(gear)		gear	Belt(gear)	gear	
	공구 형식	-	#40(#50)	#40	#40(#50)	#50	#40(#50)	#50
	스핀들 모터 파워	kW	15/11(22/18.5)	15/11 (20/15)		15/11 (20/15)		18.5/15
	토크	N·m	191.2(165.7)					893/732
자동공구 교환장치	최대 공구 무게	kg	8(15)	8	8(15)	20	8(15)	20
	Tool-To-Tool	sec	1.3 (2.5)	2.6	1.3 (2.5)	2.5	1.3 (2.5)	3.5
	Chip-To-Chip	sec	3.7(5.5)	6.6	3.7(5.5)	7	3.7(5.5)	10
	공구 보유수 (#40/#50)	EA	30(40) 24	24 (30)	30(40) 24(30)	20(30)	30(40) 24(40)	20(30)

VMC 6.5호기 이상에서  
이송계 Rapid 우수함

비절삭시간 확연한 우위로  
생산성 우수

VMC 5호기 장비에서  
#50버전 운영함

## ■ Mynx series \_ Sales point

### Broader box guideways

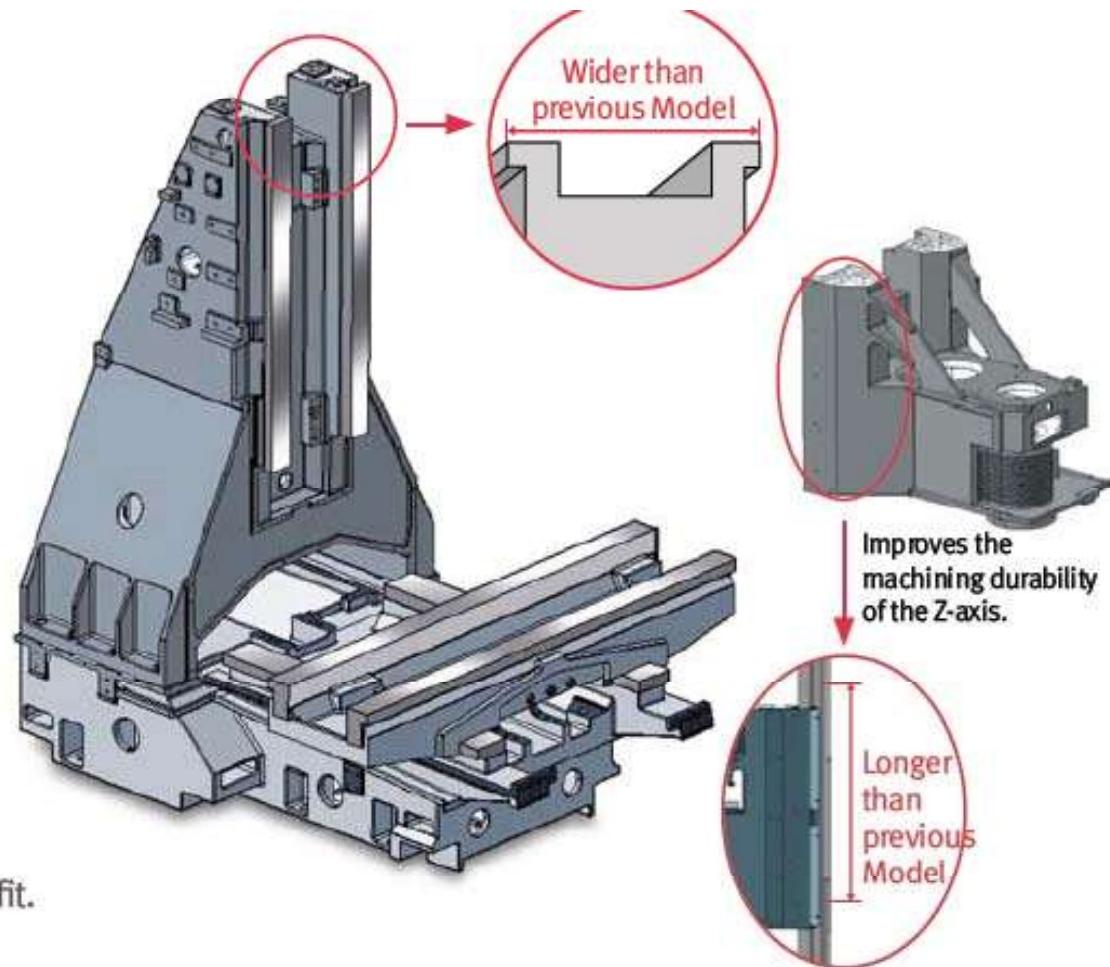
Compared to the previous models, the broader box guideways greatly improve the machine's dynamic characteristics.

	Mynx5400	Mynx6500
Z-axis Span width	22%↑	5%↑
Z-axis Span Length	32%↑	8%↑



### Scraping of surface

The sliding surface of each guideway is bonded with Rulon® 142 to reduce friction, then hand scraped for a perfect fit.



## Mynx series \_ Sales point

### A wide selection of spindles

The Mynx series' wide selection of spindles enables customers to optimize performance for various machining operations.

Model	Taper [DIN]	Speed r/min	Power Transmission	Power kW (Hp)	Max. Torque N·m (ft-lbs)
Mynx 5400 Mynx 6500	#40	8000	Belt-driven	std. 15/11(14.8/20.1) [Con./30min]	191.2 (141.1) [30min]
		12000		opt. 15.6/15.6(20.9/20.9) [Con./30min]	165.7 (122.3) [30min]
	#50	6000	Belt-driven	Mynx 5400 std. Mynx 6500 opt. 15/15/11(14.8/20.1/20.1) [Con./15/30min]	286.4 (211.4) [15min]
				Mynx 5400 opt. Mynx 6500 std. 15/18.5(20.1/24.8) [Con./30min]	306.9 (226.5) [30min]
		8000	Gear-driven	opt. 18.5/22(24.8/29.5) [Con./30min]	452.0 (333.6) [30min]
			Belt-driven	opt. 11/15/15(14.8/20.1/20.1) [Con./15/30min]	286.4 (211.4) [15min]
Mynx 7500	#40	8000	Belt-driven	std. 22/15 (29.5/20.1) [Con./15min]	306.7 (226.3) [15min]
		12000		opt. 22/26 (29.5/34.9) [Con./30min]	165.6 (122.2) [30min]
	#50	6000	Belt-driven	std. 15/18.5 (20.1/24.8) [Con./30min]	306.7 (226.3) [30min]
				opt. 18.5/22 (24.8/29.5) [Con./30min]	365.5 (269.7) [30min]
		8000	Gear-driven	opt. 18.5/22 (24.8/29.5) [Con./30min]	464.3 (342.7) [30min]
			Belt-driven	opt. 11/15/15 (14.8/20.1/20.1) [Con./15/30min]	286.4 (211.4) [15min]

## ■ Mynx series \_ Sales point

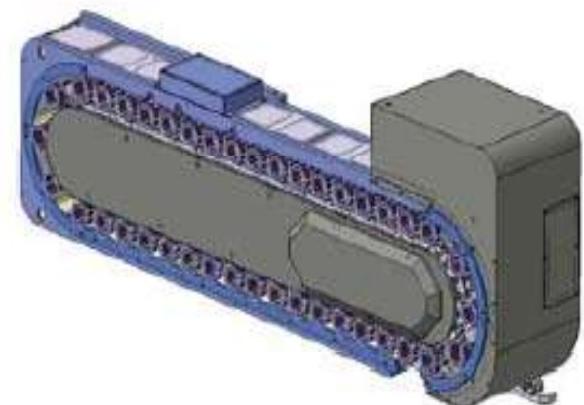
### A wide selection of tool magazine

Model	Taper	Tool <small>std.</small>	Tool <small>opt.</small>
Mynx 5400	#40	30	40
	#50	24	-
Mynx 6500	#40	30	40
	#50	24	30 *
Mynx 7500	#40	30	40
	#50	24	40 *

→ Drum type magazine  
with CAM



Loop type magazine  
with CAM \*



### Tool storage capacity

Previous model

Mynx series

Taper #40

24 tools



30 tools std., 40 tools opt.

Taper #50

16 tools

24 tools std., 30 tools opt., 40 tools opt.

# Mynx series \_ Specification

	Features		Unit	Mynx 5400	Mynx 5400/50	Mynx 6500	Mynx 6500/50	Mynx 7500	Mynx 7500/50				
Travels	Travel (X / Y / Z-axis)		mm (inch)	1020/540/530 (40.2/21.3/20.9)		1270/670/625 (50.0/26.4/24.6)		1525/762/625 (60.0/30.0/24.6)					
	Distance from nose to table top		mm (inch)	150-680 (5.9-26.8)	200-730 (7.9-28.7)	150-775 (5.9-30.5)	200-825 (7.9-32.5)	150-775 (5.9-30.5)	200-825 (7.9-32.5)				
	Distance from center to column		mm (inch)	567 (22.3)		722 (28.4)		785 (30.9)					
Feedrate	Rapid traverse (X / Y / Z)		m/min (ipm)	30 / 30 / 24 (1181.1 / 1181.1 / 944.9)									
	Cutting feedrate		mm/min (ipm)	12000 (4724.4)									
Table	Table size		mm (inch)	1200 x 540 (47.2 x 21.3)		1400 x 670 (55.1 x 26.4)		1600 x 750 (63.0 x 29.5)					
	Table loading capacity		kg (lb)	800 (1763.7)		1000 (2204.6)		1500 (3306.9)					
	Table surface		mm (inch)	4-125 x 18H <sub>8</sub> (4-4.9 x 0.7H <sub>8</sub> )		5-125 x 18H <sub>8</sub> (5-4.9 x 0.7H <sub>8</sub> )		6-125 x 18H <sub>8</sub> (6-4.9 x 0.7H <sub>8</sub> )					
Spindle	Max. spindle speed	Belt	r/min	8000 [12000]	6000 [6000, 8000]	8000 [12000]	6000 [6000, 8000]	8000 [12000]	6000 [8000]				
	※ Refer to page 6	Gear	r/min	-	[6000]	-	[6000]	-	[6000]				
	Spindle Taper			ISO #40, 7/24 Taper	ISO #50, 7/24 Taper	ISO #40, 7/24 Taper	ISO #50, 7/24 Taper	ISO #40, 7/24 Taper	ISO #50, 7/24 Taper				
	Max. Torque	Belt 8000 (12000)	N·m (ft-lbs)	191.2 {165.7} (141.1(122.3))	-	191.2 {165.7} (141.1(122.3))	-	140.1 {165.7} (122.3))	-				
	※ Refer to page 6	Belt 6000	N·m (ft-lbs)	-	286.4 (211.4) [306.9(226.5)]	-	306.9 (226.5) [286.4(211.4)]	-	306.9 (226.5) [365.5(269.7)]				
		Gear 6000	N·m (ft-lbs)	-	{452.0(333.6)}	-	{452.0(333.6)}	-	{452.0(333.6)}				
		Belt 8000	N·m (ft-lbs)	-	{286.4(211.4)}	-	{286.4(211.4)}	-	{286.4(211.4)}				
	Type of tool shank *			BT,DIN 40	BT,DIN 50	BT,DIN 40	BT,DIN 50	BT,DIN 40	BT,DIN 50				
	Tool storage capacity		ea	30[40]	24	30 [40]	24[30]	30[40]	24[40]				
ATC	Max. tool diameter Without Adjacent Tools		mm (inch)	80 (3.2) {76 (3.0)} / 125 (4.9)	125 / 220 (4.9/8.7)	80 (3.2) {76 (3.0)} / 125 (4.9)	125 / 220 (4.9/8.7)	80 (3.2) {76 (3.0)} / 125 (4.9)	125 / 220 (4.9/8.7)				
	Max. tool length		mm (inch)	300 (11.8)	350 (13.8)	300 (11.8)	350 (13.8)	300 (11.8)	350 (13.8)				
	Max. tool weight		kg (lb)	8 (17.6)	15 (33.1)	8 (17.6)	15 (33.1)	8 (17.6)	15 (33.1)				
	Tool selection			Memory Random									
	Tool change time (Tool-to-tool)		s	1.3	2.5	1.3	2.5	1.3	2.5				
Motors	Tool change time (Chip-to-chip)		s	3.7	5.5	3.7	5.5	3.7	5.5				
	Spindle motor	Belt 8000 (12000)	kW (Hp)	15/11 (20.1/14.8) [15.6/15.6(20.9/20.9)]	-	15/11 (20.1/14.8) [15.6/15.6(20.9/20.9)]	-	22/15 (29.5/20.1) [22/26 (29.5/34.9)]	-				
	※ Refer to page 6	Belt 6000	kW (Hp)	-	15/15/11 (20.1/20.1/14.8) [18.5/22 (24.8/29.5)]	-	15/15/11 (20.1/20.1/14.8) [18.5/22 (24.8/29.5)]	-	18.5/15 (24.8/20.1) [22/18.5(29.5/24.8)]				
		Gear 6000	kW (Hp)	-	{22/18.5(29.5/24.8)}	-	{22/18.5(29.5/24.8)}	-	{22/18.5(29.5/24.8)}				
		Belt 8000	kW (Hp)	-	{15/15/11 (20.1/20.1/14.8)}	-	{15/15/11 (20.1/20.1/14.8)}	-	{15/15/11 (20.1/20.1/14.8)}				
	Feed motor (X / Y / Z)		kW (Hp)	3.0 / 3.0 / 4.0 (4.0 / 4.0 / 5.4)		4.0 / 4.0 / 7.0 (5.4 / 5.4 / 9.4)							